

and extensive mixture of pus with the blood, as sometimes occurs after operations on veins, or amputations, or even independently of wounds.

I cannot conclude this paper without expressing a hope that it will lead to a still more careful and extensive examination of the blood in various diseases than has hitherto been attempted. The microscope may become as important an instrument to the pathologist, and even to the medical practitioner, as the stethoscope. If my results should be confirmed, it is hardly too much to expect that some important discovery, particularly in diagnosis, may be made by a patient investigation of the blood in many malignant diseases, such as cancer: it is not long since the urinous fever, as it is called, was found to depend on the accumulation of urea in the blood.—*Lancet*, Sept. 21, 1839.

MATERIA MEDICA AND GENERAL THERAPEUTICS.

14. *Clinical Experiments on the Emetic and Sudorific Properties of the Hydrotel Sulphuret of Antimony, with excess of Sulphur.*—From a series of experiments of which the individual results are given in a table, Dr. M. A. TOULMOUENS draws the following conclusions on the properties of this salt:

1. This preparation of antimony acts with greater certainty as an emetic, when given in doses of one or two grains, than when exhibited in larger quantities.

2. It induces vomiting in smaller doses than kermes.

3. Its emetic action, although less uncertain than that of kermes, is still far from sure, inasmuch as it is only developed in somewhat more than half the cases of its administration.

4. It acts much less frequently as a purgative than as an emetic; whereas the contrary is true of kermes.

5. Like the last named compound, it may be given with impunity in large doses, and in other affections besides rheumatism and pneumonia; in these cases its emetic and purgative effects appear to diminish in proportion to the increase of the dose.

6. The sudorific properties attributed to it by writers on materia medica are by no means incontestable; in 102 cases of its exhibition it acted on the skin thirteen times only.—*Br. and For. Med. Rev. from Gaz. Méd. de Paris*, April, 1839.

15. *Styptic Action of Creosote.*—Drs. MULLEN and REITER have lately instituted a series of experiments for the purpose of ascertaining the styptic properties of creosote, when applied directly to a bleeding surface. The hæmorrhage from the division of the crural vein in dogs was found to be arrested by the application of a plug of cotton, which had been well moistened in the creosote.

In the case of divided or wounded arteries, it was necessary to keep up a certain degree of compression for some time, in order that the creosote might be able to act upon their parietes. Upon examining the cut arteries afterwards, they were always found to be quite closed or obliterated at the part, exhibiting outwardly an umbilical depression, which corresponded with a conical shaped coagulum within: the coats of the vessel were usually inflamed for the extent of an inch or so.

The creosote was found to be a more decided and secure hæmostatic remedy than the far-famed aqua Binelli. *Creosoted water* sufficed to stop the bleeding from an oozing surface, when no large vessels had been divided. When creosote was injected into veins, the blood was found to be instantaneously coagulated.

Professor Schneider, of Munich, had recently an opportunity of using creosote as a styptic in one of his patients. An old man was subject to most profuse hæmorrhage from the mouth. He had lost several pounds of blood, and a variety of means had been ineffectually tried to arrest the hæmorrhage.

M. Schneider made him fill his mouth with water charged with creosote (*eau creosotée*); after the third mouthful, the bleeding ceased, and did not afterwards return.—*Med. Chirurg. Rev., from Schmidt's Jahrbuch.*

16. *Formula for Internal Administration of Turpentine.*—R.—Olei terebinth. ʒiiss or ij; Magnesiae carbonat. ʒj. Tere simul et adde Aq. menth. sat. ʒv; Syrup limonum ʒij; Spts. lavend. comp. ʒij. Misce; sumatur pars quarta ter die.

17. *Citrate of Quina.*—This is recommended by Prof. BERAUDI in intermittents as equal, in one-third the dose, to the sulphate in effect, as being more easily borne by the stomach, and further as causing less congestion of the brain.—*Bull. Gén. de Thérap. from Schmidt's Jahrb.*

18. *On the Medical Properties of Aloes.* By G. G. SIGMOND, M. D.—The operation of the different varieties of aloes upon the system, though differing in intensity, is precisely similar as to its nature; although they are all perfectly soluble in fluids, whether of an aqueous or of a spirituous kind, they do not seem so immediately to be dissolved in the human stomach, and hence the slowness of their operation, generally speaking twelve or sixteen hours elapsing before their effect is decidedly exhibited. It has been, and is still an interesting question upon what viscus does aloes more immediately act? Whilst some confine its power to the rectum, others believe its agency to be upon the liver; by some it is not believed to be entirely dissolved until it has reached the receptacle of the residuum of the ingesta, which cannot be incorporated into the system. Its influence upon the liver is certainly marked by the peculiar condition of the evacuation, which shows evidently, both by its colour, by its odour, by the peculiar pungent effect upon the anus, that an increased quantity of bile has been poured forth. That it acts upon the vena portarum is fairly to be deduced from the very peculiar state into which the hæmorrhoidal veins are thrown by the congestions which so rapidly occur after a dose of this drug has been taken, and also by the condition of the uterine vessels which has led to its employment as an emmenagogue. It is not easy to ascertain whether this specific influence upon the venous system is the cause of the cathartic power possessed by it; we find, however, that some connection exists, and that the more the large intestine is stimulated to pour forth its contents by its action, not by the largeness of its dose, the greater is the relief afforded to the sanguiferous system; hence its great value in determination of blood to the head, in venous congestions, and its superiority over medicines of somewhat a similar nature, and hence, too, the caution necessary in its administration. The slowness of its action renders it sometimes to us of much importance, from our power of giving it in some states in which it is to be given at night, and its operation is not required until the morning; the smallness of the volume in which it may be used, the shape of pill into which it is so easily made, and which disguises so well its bitterness, are all of them subjects worthy our consideration.

From the circumstance of the alkalies and the carbonates rendering it more soluble, it is often combined with them, and we are hence furnished with weapons which, used with skill and care, enable us more certainly to combat disease. Thus, with soap, although we may diminish its intensity of action, we render it more quickly purgative. If, with Dr. Hamilton, we cannot quite agree that it is almost a universal remedy, that the most formidable maladies will yield to its effects, still it is to be acknowledged that in a vast number of chronic disorders it is invaluable; that in the obstinate constipation to which the artist, the student, the aged, and the sedentary are subject, from inactivity of the liver and of the sanguiferous system, it is, under the control of the skilful medical man, a drug which deserves the highest commendation; and though from its abuse in the vast number of quack medicines and patent pills, it has been the source of mischief, and has been occasionally condemned, we possess

nothing that we could substitute for it that has more claims to our consideration.—*Lancet*, August 11, 1838.

19. *Medical Properties of Copaiba.* By G. G. SIGMUND, M.D.—The physicians of the last century entertained a very high opinion of balsam of copaiba as a cure for diseases in which it is now seldom if ever employed. Among other morbid states in which it was recommended by some, but objected to by others, was consumption; and there were many individuals of high eminence who took up different views of its power. Amongst those who were sanguine as to its effects was Dr. Fuller, the author of a work very highly prized in its day, entitled, "*Ars Præscribenda, sive Pharmacopœia Extemporanea Reformata*;" his language in the praise of the remedy is of the most laudatory kind. Hoffman, Munro, Simmons, also joined in extolling it; on the other hand, Pringle, Rosenstein, Tissot, Fothergill, and Quarin, thought it even prejudicial. The consequence of this division of opinions has naturally been to look to other means; in the language of Murray, "*Tutissimum igitur est inter vituperium et laudem virtutis antiphihiscæ balsamorum medium procedere.*" In modern days some of our eminent physicians have given the balsam of copaiba in chronic affections of the larynx and trachea; and it would altogether seem to exert a powerful influence upon mucous membranes, restoring their power of healthy secretion. Dr. Armstrong was one of the most conspicuous of those who recommended it; he seemed to think it exerted a specific effect on the mucous membranes. Dr. Fosbrooke, of the Ross Dispensary, Herefordshire, entertains a high opinion of copaiba in affections of the mucous membranes of the pharynx and larynx of a low, old, and chronic character.

Mr. Selwyn, of Ledbury, a leading general practitioner in that county, employs copaiba with rapid success in the lingering mucopurulent secretion in the last stage of mucous catarrh, in elderly persons, upon the same principle as he would employ it in blenorrhœa.

Dr. Hastings, of the Worcester Infirmary, in his very valuable "*Treatise on Inflammation of the Mucous Membrane of the Lungs*," thus expresses himself: "Dr. Armstrong thinks that the copaiba deserves to be conspicuously placed amongst the internal medicines, as it exerts a specific influence on the mucous membranes. It has failed with the author in producing so much benefit as he was led to expect from Dr. Armstrong's report. Whenever there is much fever it appears to be increased by this remedy, and it does not always allay the cough, or alter the expectoration. It frequently disagrees with the stomach when given in sufficient doses to benefit the pectoral symptoms, and sometimes a diarrhœa comes on under its use; occasionally it produces all the troublesome effects without relieving the cough. But the balsam certainly seems to exert an influence on the mucous membrane, although, perhaps, not a much greater one than the squills or meadow saffron."

Dr. La Roche has, in one of the numbers of the "*North American Journal*," given us some valuable cases illustrative of this power; one of Mr. Roberts, a gentleman, twenty-two years of age, is particularly interesting; the symptoms were of the most aggravated character; nocturnal sweats, extreme debility, difficulty of breathing, copious expectoration, were present, and resisted every treatment that could be suggested; these began to disappear after two weeks' administration of large doses of copaiba, and three months were sufficient to restore him to perfect health.

Balsam of copaiba has been employed with some success in dropsy; the cases on record, however, are not numerous; the most remarkable one is that of the celebrated Mutis, which has often been alluded to; whilst practising at Santa Fe, he gave it, commencing by small doses to the extent of a large spoonful morning and evening, to a female labouring under ascites; she drank immediately after a glass of barley-water: this excited the kidneys into extraordinary action, and in the course of forty days she was perfectly cured.

In diseased states of the mucous membranes of the intestinal and urinary passages this is one of the most serviceable medicines we possess; in affections

of the rectum, in which the lining membrane is the principal seat of disorder, we obtain from it more relief than from any thing we possess; hence its use in some states of hæmorrhoids; it does not, however, act where the tumours are the sole cause of the anguish and uneasiness. As long as these remain in a turgid state, and by their mechanical obstruction add to the mischief, you are not to expect to derive any particular advantage, but as soon as these are reduced, and when the relaxation of the internal membrane is a source of mischief, you are to have recourse to it. In ulcerated states it is most valuable—in chronic inflammations, and in that peculiar condition which has occasionally been consequent upon the undue action of very active cathartic remedies, where the mucous lining of the intestine has been discharged, almost in the form of the bowels, in that condition which Dr. Good has called *diarrhœa tubularis*, this has attended upon large doses of the oil of turpentine to dislodge tape-worm; upon the injudicious employment of doses of gamboge, it leaves the subjacent tissue in a most irritable state, so that any evacuation is attended with a high degree of suffering; for this the balsam is to be given either by the mouth or by injection. Where, from the long existence of hæmorrhoids, the verge of the anus is in a very irritable condition, surrounded by small papular eruptions, which keep up an intolerable itching, where the morbid state is evinced by an inordinate quantity of perspiration, which is sometimes so great as almost to lead to a belief that there is a mucons discharge, the same treatment is to be pursued. You had better first, however, allay the itching, which may be done by a local application of one part of creosote to three parts of the balsam of copaiba, which must, by agitation, be mingled together.

In gonorrhœa, after the inflammatory stage has in a great measure been relieved, you may administer this therapeutic agent, but it ought not to be commenced with until free purging has taken place; there are many practitioners, nevertheless, who consider that it may with safety be given during the inflammatory stage, and with decided success. It has been stated that incipient gonorrhœa has been cured in two or three days by a drachm of the balsam of copaiba, night and morning, and that obstinate gleets have yielded to it in fifty hours. Dr. Dawson, of Sunderland, adopted this mode of treatment on a large scale, and communicated it to Dr. Armstrong, who became its warm supporter. That in many instances this plan of treatment may, without doing any mischief, be followed, I have no doubt whatever; still there are many instances in which very bad effects have resulted from it, such as the swelling of the testicle, high irritation of the bladder, and also acute rheumatism.

I believe that great surgeon, who has been the ornament of the English school for so many years, Sir Astley Cooper, was one of the first who pointed out the existence of what is called gonorrhœal rheumatism, though it is not an unfrequent disease. He met with a case of an American gentleman, who had both the ophthalmia and the rheumatism, which has sometimes since been found to supervene upon gonorrhœa, and it made a strong impression upon his mind, more particularly as he had not found any description of it in any surgical work. He observes that it requires the same remedies that are used in gonorrhœa, either the spirit of turpentine, the balsam of copaiba, or olibanum; those who have since that period watched the nature of these affections, have ascribed them to causes quite independent of the original disease; and amongst those that have been suggested, and with every reason to believe in the soundness of the observation, has been the use of the balsam of copaiba, which has caused that degree of rheumatism which would be called gonorrhœal.

This form of disease has been very well described by Dr. Titley, who, however, ascribes it to the suddenly ceasing the use of cubebs, or copaiba; he observes, "that the pain and swelling are more especially confined to the knees and ankles, though, in some instances, the symptoms are more diffused, the pain is more acute, and the general disturbance of the system more violent; there is often much puffiness and tenderness of the ankles, especially towards evening; the skin is not externally red, and the pain is not much increased on pressure; the pulse is quickened, the stomach becomes disordered, and the appetite declines,

or altogether fails." There is a very good paper on this subject, showing that gonorrhœal rheumatism is cupaibal rheumatism, with some cases, from the pen of Mr. Eagle, of the Poultry, which is to be found in one of the volumes of *THE LANCET*; it contains some very interesting information with very fair and just reasoning. Mr. Maddock has likewise favoured us with the result of his observations through the same channel, and he has seen no one instance of gonorrhœal inflammation, unless copaiba had been antecedently administered. One of the effects of the administration of copaiba has been an eruption of papulæ, and sometimes of pustules in large patches. Mr. Judd has given us instances where, when this remedy had been taken, the stomach has become deranged, and then the skin affected; in one instance the copaiba had been only taken a week for gonorrhœa, when itching, tingling, and irritation, with pain in the limbs, came on; a very vivid mottled state of skin almost immediately followed the latter symptom, and covered his whole person a capite ad calcem. Mr. Judd has, in his very useful work entitled "*A Practical Treatise on Urethritis and Syphilis*," which deserves a much higher place in the medical works of the day than many others which have a greater character, exhibited a most interesting plate of the puniceous mottled skin from copaiba, drawn from a case which presented itself to him, and likewise another of the eruption of papulæ; these are well worthy your attentive examination. You must bear in mind that the puniceous eruption from copaiba seldom lasts beyond the ninth day, and that where eruptions of the skin follow upon gonorrhœa, they do not occur much before three weeks have elapsed from the imbibition of the gonorrhœal poison. Although under such circumstances you may lessen the dose of copaiba you need not discontinue it, for it will not aggravate the eruption which will run through its course. Where gonorrhœa has been attempted to be thus cured too early, the synovial membrane of the knee-joint is very apt to become indamed, and this is often called metastasis; but if you examine into all the circumstances, you will find that the balsam of copaiba has been given before the inflammatory state of the mucous membrane of the urethra has been reduced. In the gleet discharge which follows upon gonorrhœa, nothing is more likely to be serviceable than the copaiba; it is not, however, so good as the *diosma crenata*, or *buchu*, in that which is not dependent upon a specific poison, but is the result of debility, where, from some causes, there is a weeping or actual catarrh from the urethra, which is rather consequent upon a long-continued chronic inflammation than from the acute one caused by gonorrhœa. You must remember that John Hunter shows how necessary it is to persevere in its use, and to recur to it even after the shadow of a suspicion of latent mischief has disappeared. When your patient says there is not the slightest discharge, and you allow him to leave off his dose, impress upon his mind that in about ten days he must return to it, or else he may be harassed for months by a relapse, after he has indulged in a good dinner, has rode on horseback, or has even followed any ordinary occupation with greater earnestness than usual. Hunter says, "I have known cases where the gleet has immediately disappeared upon taking the balsam, and recurred upon leaving it off; and I have also seen where that medicine has kept it off for more than a month, and yet it has recurred immediately upon laying it aside, and stopped again as quickly upon having recourse to it." The sweet spirit of nitre, with camphor mixture, determines the copaiba very speedily to the urinary apparatus, and forms one of the most useful modes of giving it for a great length of time; it may be discontinued, and then again had recourse to with good effect.

Dr. Daniel Turner, whose name I have had occasion to mention to you, was one of the early employers of this remedy, which he gave with sugar in the form of paste in gleets with very great success; and this mode of using it is very excellent, for it disguises the excessive nauseousness of the drug. Shortly after it has been taken, the stomach becomes qualmish; in some instances there is excessive nausea with flatulence, occasionally palpitations of the heart have been complained of; the eructation, which is very offensive, shows that this has depended upon momentary pressure upon the diaphragm; the bowels are

not unfrequently much acted upon, whilst the urine acquires a very peculiar odour, such as that which the violet exhales, only much more powerful. Much of the efficacy of this medicine will depend upon its mode of administration and upon its purity; combined with the liquor potassæ it often agrees well with the patient. Dr. Chapman recommends it to be dropped on half a wineglassful of water, to which is to be added, slowly, a few drops of a bitter tincture, by which means the copaiba is collected in a small globule which is easily swallowed, and it does not communicate any disagreeable impression to the palate. It was used amongst the Americans at a very early period as an injection into the urethra for gonorrhœa, and Jaquin was able to bear testimony to the success of this practice; it has been, since that period, frequently thus used with considerable advantage, but always after the inflammation has subsided, many very obstinate gleetings have completely yielded to this. On the common mucous discharges from the vagina this agent does not exert any specific effect; they are, for the most part, dependent upon the state of the general health, and though to be restrained by local applications, in many instances demand constitutional treatment; and where copaiba is, in such instances, injudiciously given, it may keep up a high state of irritation, and be productive of much mischief; where these discharges are dependent on irregularity in the habits of life and a want of cleanliness, this is to be avoided; but in the discharge from gonorrhœa it may be employed even in the stage of inflammation with less circumspection than in the male. Although we hear of very large doses, you will find from fifteen to forty drops, two or three times a day, quite enough. Schewdiaur, who had very great experience in disorders of the reproductive system, gave from fifty to one hundred drops morning and evening: a drachm generally acts very quickly upon the bowels. It has been given also in large doses for affections of the kidneys, for gravel, for paralysis; it has been externally applied for the cure of wounds, for the healing of abscesses; and Hoppe states that, where sinuses exist, they are often very speedily healthily filled up if the dressings contain some portion of the balsam. In wounds of the tendons and nerves, where trismus has occurred, its local application has been said to soothe the system and very speedily to remove the spasm; it has likewise been spoken of as an external application to paralysis of different muscles; and a liniment formed of it has been known to stimulate some parts into action that had apparently lost their power. It has been said by Ratier, that the value of copaiba is diminished by any quantity of fluid, and, therefore, attempts have been lately made to give it entirely in the solid form; but this is a great mistake, for the stomach demands much more power to dissolve it than in a fluid form, and dyspepsia very often occurs after a very few doses; sugar is, however, a good assistant to it; or, as Ratier recommends, a teaspoonful of wine, and this is to be taken without giving any drink if possible. Stimulants should generally be avoided whilst this drug is taken, and every thing that can determine much to the kidneys and bladder, which have occasionally been much irritated by it. Blisters should be avoided during its use, for strangury is likely to supervene; its bad effects are best obviated by the free use of camphor, or may be checked by opium or hyoscyamus.

—*Lancet*, Sept. 8, 1838.

20. *Syrup of Ioduret of Iron*.—The ordinary solution of ioduret of iron is so speedily decomposed as to render its administration troublesome from the necessity of frequently renewing it; and the dose is also uncertain. M. FREDERICK has published in *Buckner's Repertorium für die Pharm.* (1839), a formula for the preparation of a syrup of this salt which even when exposed to the air remains undecomposed for upwards of three months. This formula is as follows: Take of pure iodine one hundred grains; iron filings fifty grains; distilled water one ounce. Digest these for some time, filter and wash the ferruginous mass with a little distilled water; unite the fluids and add half an ounce of sugar; then evaporate down to one ounce. This syrup united with powdered marsh mallow makes a good pilular mass, or mixed with water, a clear solution. Four parts of this syrup contains one part of ioduret of iron. Hengel has

observed that the syrup becomes brown; but sometime afterwards its clearness is restored without any precipitate of oxide of iron.

SPECIAL PATHOLOGY AND SPECIAL THERAPEUTICS.

21. *Paraplegia Cured by the Use of the Secale Cornutum.*—Our preceding No. p. 205, contains some observations on the efficacy of ergot in paralysis. The following cases, which afford additional evidence to the same effect, are from a late No. of the *Révue Médicale*.

Case 1.—A man, *ætat.* 72, was admitted into the Hôtel Dieu at Aix, with so little power in his limbs that he could scarcely maintain himself erect. The sensibility too of the limbs was much impaired. A variety of local and general remedies had been tried, but without advantage. M. ARNAUD directed him to take an infusion of a scruple of ergot of rye every morning early. After a week's use of it, there was a manifest improvement in the patient's condition; and at the end of the third week—the dose had been increased to half a drachm—he could walk about the ward, and go up and down stairs with the aid merely of a stick.

A sense of pricking and occasional involuntary twitchings of the muscles of the limbs were experienced during the use of the remedy.

Case 2.—A soldier, while on ship-board, fell backwards on a beam of wood with such violence as to stun him; the loins were very severely bruised. By the employment of quietude, leeches to the part, &c. the local symptoms were speedily relieved; but there remained an almost complete loss of power in the lower limbs, so that not only the patient could not support himself on his feet, but he was unable to raise either leg from bed.

An infusion of the ergot was, therefore, ordered to be taken every morning.

An amendment had manifested itself at the end of a week or ten days, when the use of the medicine was discontinued by the direction of another physician, who ordered the moxa to be applied on each side of the lumbar vertebrae.

Three months afterwards the state of the patient was not at all improved. The use of the ergot was now resumed, and the dose was gradually increased from 15 to 60 grains. This treatment was persevered in for five or six weeks, at which time the patient was entirely cured of all paralytic weakness.

Case 3.—A man, *ætat.* 26, had been for two years labouring under disease of the spine, (Pott's disease,) which was ultimately arrested by the use of caustic issues, &c. A great weakness of the lower limbs, however, remained behind, so that it was only with extreme difficulty that he could walk. As the disease of the spine seemed to be quite got the better of, the weakness was attributed to a mere atony of the muscles from the long-continued inaction which had been necessary during the treatment. A fortnight's use of the ergot restored him to the perfect enjoyment of his muscular strength.

Case 4.—In this case a degree of paraplegia had remained after a severe bruise of the loins. When all the inflammatory symptoms were completely removed, the patient commenced the use of the ergot; in the course of a fortnight the paralytic weakness had quite ceased.

Remarks.—The directly stimulating effects of the ergot on the uterus, bladder, and lower extremities, cannot be questioned by any practical man in the present day. It has been used, with decided advantage, not only in lingering labours arising from imperfect contractions of the uterus, but also in other cases where this viscus is atonic, as in many cases of amenorrhœa, of passive uterine hemorrhage, and of abortion; likewise in certain retentions and in incontinence of urine, connected with defective contractility of the bladder; and more recently in certain forms of paraplegia, and of muscular debility of the lower limbs.

Its *modus operandi* is probably by stimulating the lower portion of the spinal column; its effect on the pelvic viscera and lower extremities being thus, as it were, secondary."